



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,911	10/30/2001	Kenneth R. Williams	10018225-1	5815
22879 7590 06/09/2008 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER				
SHAH, MANISH S				
ART UNIT		PAPER NUMBER		
2853				
NOTIFICATION DATE		DELIVERY MODE		
06/09/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM

mkraft@hp.com

ipa.mail@hp.com

**Office Action Summary****Application No.**

10/015,911

**Applicant(s)**

WILLIAMS ET AL.

**Examiner**

Manish S. Shah

**Art Unit**

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5-8,10,12,16,26,28-34,36-38,52-60,62,63 and 66-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8,10,12,16,26,28-34,36-38,52-60,62,63 and 66-70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. **Note:** Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 26, 28-29, 57-60 are rejected under 35 U.S.C. 102(e) as being anticipated by Donahue et al. (# US 6155669).

Donahue et al. discloses:

A printing system and printing method comprising:

- A first set of print bar assemblies (figure: 3; element: 71) configures to transfer a first percentage of an imaging medium onto a first side of print media (58), when stationary.
- A second set of print bar assemblies (element 72) configured to transfer a second percentage of the imaging medium onto the first side of the media (58)

- The print media (element 58) being advanced such as the second percentage of the imaging medium is transferred onto the first side of print media after the first percentage of the image medium is transferred on to the first side of print media; at least one other set of print bar assemblies configured to transfer a percentage of the imaging medium onto the print media (element: 73-74; figure: 3), wherein the percentages of the imaging medium transferred onto the print media with one or more print bar assemblies of the print units correspond to the number of print units (column: 5, line: 40-65).

- The first set of print bar assemblies transfers a first half of the imaging medium to form a first portion of a printed image on the print media and wherein the second set of the print bar assemblies transfers a second half of the image medium to form a second portion of the printed image (column: 5, line: 40-60).

- The first set of printbar assemblies includes printheads (element: 71; figure: 3) extending, along three axes substantially perpendicular to a direction (A) in which the print media (58) is advanced.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5-8, 10, 12, 16, 30-34, 36-38, 52-56, 62-63 & 66-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donahue et al. (# US 6155669) in view of Kitahara et al. (# US 6672705).

Donahue et al. discloses all the limitation of the ink jet system and method as shown below:

- A first set of print bar assemblies (figure: 3; element: 71) configures to transfer a first percentage of an imaging medium onto a first side of print media (58), when stationary.

- A second set of print bar assemblies (element 72) configured to transfer a second percentage of the imaging medium onto the first side of the media (58)

- The print media (element 58) being advanced such as the second percentage of the imaging medium is transferred onto the first side of print media after the first percentage of the image medium is transferred on to the first side of print media; at least one other set of print bar assemblies configured to transfer a percentage of the imaging medium onto the print media (element: 73-74; figure: 3), wherein the percentages of the imaging medium transferred onto the print media with one or more print bar assemblies of the print units correspond to the number of print units (column: 5, line: 40-65).

- The first set of print bar assemblies transfers a first half of the imaging medium to form a first portion of a printed image on the print media and wherein the second set of the print bar assemblies transfers a second half of the image medium to form a second portion of the printed image (column: 5, line: 40-60).

- The first set of printbar assemblies includes printheads (element: 71; figure: 3) extending, along three axes substantially perpendicular to a direction (A) in which the print media (58) is advanced.

Donahue et al. differ from the claim of the present invention is that:

- The first set of printbar assemblies comprises a plurality of print modules; and a framework supporting and aligning the plurality of print modules such that the plurality of print modules are connected as a single assembly.

- The plurality of print modules includes a plurality of printheads, wherein each print module includes a body connecting the plurality of printheads as a single module.

- The plurality of printheads overlap in the direction in which the print media is advanced.

- The imaging medium transferred by the first set of printbar assemblies is a chromatic color, wherein the imaging medium transferred by the second set of printbar assemblies is the same chromatic color, and wherein the first printbar assembly and the second printbar assembly transfer substantially the same percentages of the imaging medium onto the media.

- The total amount of the imaging medium is transferred onto the first side of the print media using a total number N of print units and wherein each of print unit transfers a percentage of the image medium substantially equal to 100% N.

- a first heater configured to dry the first percentage of the imaging medium and a second heater configured to dry the second percentage of the imaging medium and the first percentage of the imaging medium dried with the first heater before the second

Art Unit: 2853

percentage of the imaging medium is transferred onto the print media and the first and second heater positioned under or above the print media.

- the first heater configured to remove moisture from the first percentage of the image medium before the one or more print bar assemblies of the second print unit transfer the imaging medium onto the print media, a second heater configured to remove moisture from the second percentage of the image medium,

- the first heater system and the second heater system each includes a component positioned to envelop a portion of the print media and remove moisture from the media.

- Removing moisture from the print media with multiple heater system and an individual heater system corresponding to an individual print unit to remove the moisture deposited along with the ink by individual print unit.

- removing includes removing the moisture with the individual heater system positioned under a print media routing path positioned to envelop a portion of a print media routing path.

- drying the imaging medium with multiple heaters, an individual heater corresponding to an individual print unit to dry percentage of the image medium transferred onto the print media by one or one print bar assemblies (K, C, M, Y) of individual print unit.

- drying the imaging medium with multiple heaters, an individual heater corresponding to an individual printing unit one print bar assemblies of at least one other print unit (Element C, M Y).

- a heater configured to remove moisture from the imaging medium as the medium passes between the print units, wherein at least one of the print units is configured to transfer fixer to the medium.

Kitahara et al. teaches that to get the high speed and high quality printed image, inkjet recording system includes:

- The first set of printbar assemblies comprises a plurality of print modules; and a framework supporting and aligning the plurality of print modules such that the plurality of print modules are connected as a single assembly (Figure: 2-43).

- The plurality of print modules includes a plurality of printheads (figure: 2-8), wherein each print module includes a body connecting the plurality of printheads as a single module (Figure: 2-8).

- The plurality of printheads overlap in the direction in which the print media is advanced (figure: 4, 5, 8).

- The imaging medium transferred by the first set of printbar assemblies is a chromatic color, wherein the imaging medium transferred by the second set of printbar assemblies is the same chromatic color, and wherein the first printbar assembly and the second printbar assembly transfer substantially the same percentages of the imaging medium onto the media (figure: 2-8).

- The total amount of the imaging medium is transferred onto the first side of the print media using a total number N of print units and wherein each of print unit transfers a percentage of the image medium substantially equal to 100% N (figure: 2-43).



- a first heater (figure: 44-45: element 249, 269) configured to dry the first percentage of the imaging medium and a second heater (figure: 44-45, element 250, 270) configured to dry the second percentage of the imaging medium and the first percentage of the imaging medium dried with the first heater before the second percentage of the imaging medium is transferred onto the print media and the first and second heater positioned under or above the print media (Figure: 44-45).

- the first heater (element 249) configured to remove moisture from the first percentage of the image medium before the one or more print bar assemblies of the second print unit transfer the imaging medium onto the print media (figure: 44), a second heater (element 250) configured to remove moisture from the second percentage of the image medium,

- the first heater system and the second heater system each includes a component positioned to envelop a portion of the print media and remove moisture from the media (figure: 44-45).

- Removing moisture from the print media with multiple heater system (Figure: 44-45) and an individual heater system corresponding to an individual print unit to remove the moisture deposited along with the ink by individual print unit (figure: 44-45).

- removing includes removing the moisture with the individual heater system (Figure: 45) positioned under a print media routing path positioned to envelop a portion of a print media routing path.

- drying the imaging medium with multiple heaters (figure: 44-45), an individual heater corresponding to an individual print unit to dry percentage of the image medium

transferred onto the print media by one or one print bar assemblies (K, C, M, Y) of individual print unit (column: 31, line: 1-55).

- drying the imaging medium with multiple heaters (Figure: 44-45), an individual heater corresponding to an individual printing unit one print bar assemblies of at least one other print unit (Element C, M Y).

- a heater configured to remove moisture from the imaging medium as the medium passes between the print units, wherein at least one of the print units is configured to transfer fixer to the medium (Figure: 44-45).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the inkjet recording system, and method of Donahue et al. by the aforementioned teaching of Kitahara et al. in order to have a high speed and high quality printed image.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Manish S. Shah/  
Primary Examiner  
Art Unit 2853

/MSS/